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Serial Missed Appointments in the NHS- background, methods, and analysis plan

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Outline

- background
- Methods- focus on primary care data
- analysis
- questions and discussion

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Background

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Background

Williamson *et al. BMC Family Practice* 2014, **15**:33
http://www.biomedcentral.com/1471-2296/15/33

RESEARCH ARTICLE Open Access

Understanding "revolving door" patients in general practice: a qualitative study

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Abstract

Background: 'Revolving door' patients in general practice are repeatedly removed from general practitioners' (GP) lists. This paper reports a qualitative portion of the first mixed methods study of these marginalised patients.

Methods: We conducted qualitative semi-structured interviews with six practitioner services staff and six GPs in Scotland, utilizing Charmazian grounded theory to characterise 'revolving door' patients and their impact from professionals' perspectives.

Results: 'Revolving door' patients were reported as having three necessary characteristics; they had unreasonable expectations, exhibited inappropriate behaviours and had unmet health needs. A range of boundary breaches were reported too when 'revolving door' patients interacted with NHS staff.

Conclusions: We utilise the 'sensitising concepts' of legitimacy by drawing on literature about 'good and bad' patients and 'dirty work designations.' We relate these to the core work of general practice and explore the role that medical and moral schemas have in how health service professionals understand and work with 'revolving door' patients. We suggest this may have wider relevance for the problem doctor patient relationship literature.

GPs at the Deep End

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Background- research team

- David Ellis- behavioural psychologist
  - applied psychology, future time orientation, big data geek (missed appointments)
- Phil Wilson- academic GP
  - GP research, marginalised patients, childhood and behavioural disorders
- Alex McConnachie- statistician
  - GP research, big data
- Ross McQueenie- research assistant
  - translational research, big data

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Background

- Social justice & tackling health inequalities
- Epidemiological/population health
  - ACEs and health threatening/harming behaviours (Felitti et al 1998, Bellis et al 2014)
  - Toxic stress (Shonkoff et al 2012)
  - Escaping single disease models
- Psychological/interpersonal
  - Adult attachment style (Hunter& Maunder 2001)
  - Complex trauma/ trauma informed practice approaches (Herman 1992, BC PMH & SUPC 2013)
  - Time orientation (Zimbardo 1999)

= moving beyond ideas of 'chaotic lives'

= importance of individuals' engagement in care (not escaping the SDHs)

Background

- Serial missed appointments (SMA) viewed as patterns of behaviour
- Hypothesis- SMA as a proxy for health and social vulnerability?
- Current evidence base
  - Covers ever misses only
  - Mixed about what works
- High cost in health care and other public sector agencies

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Background- research aim

To determine the relationship between **general practice appointment attendance**, health outcomes, preventive health activity and social circumstances taking a ***life course approach*** and using extracted routine general practice, secondary, unscheduled health and education data

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Background RQ1

1. What are the differences in **illness profile**, including multi-morbidity across patients' life course between these categories of patients?

2. What are the differences in **uptake of preventative health care**?

3. What are the differences in **health service utilization** across the primary, secondary, scheduled and unscheduled health services?

4. What are the differences in **health outcomes** across the whole health system?

5. What are the differences in **social vulnerability**?

Background RQ2

Differences will be explored, described statistically, and inform the following applications:

6. Can missed appointments be used to develop a **proxy for unmet health need**?

7. Is there evidence of the existence, scale and geographical pattern of any **difference** between the **need** for health services and the health service **utilization** data currently used in the primary and secondary health care allocation formulae?

8. What evidence supports the **future development of targeted interventions** to reduce missed appointments ?

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Methods-pilot study

- Proof of concept data extract
  - 10 recruited practices
  - Appointment data extract
  - Confidence about cohorts

- Qualitative focus group with GPs
  - high/low deprivation, various roles
  - Data check on pilot data
  - Refining categories of missed appointments
  - Patient versus practice factors

Methods- patient clusters

Attendance category			Non-attendance category	
Frequent Attender	Zero	Low	Medium	High
Non-Frequent Attender	Zero	Low	Medium	High

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Methods- data

- Average of all GP or mixed health professional face to face appointments over past **three years**

Never missed appointments per year, **0**

Low missed appointments per year, **<1**

Medium missed appointments per year, **1-2**

High missed appointments per year, **2 or more**

- **908,647 patient records** from 155 Scottish GP practices

Methods

- GP data
  - Extract via a Trusted Third Party (TTP) for the NHS
  - Practices opt in as data controllers for patient records
  - Fully anonymised
  - Analysed in National NHS Safehaven
- GP appointment records
- Read Codes
- Prescription extracts
- Text extracts

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Methods-output

- Demographics
  - Age, sex, ethnicity, SE deprivation (SIMD decile), rurality, number of address moves, distance from practice/A&E
- Health condition diagnoses
  - Multi-morbidity (Barnett et al 2012)
  - priority1 codes (KIS)
  - un-coded psychological morbidity (BNF prescriptions)
- Health promotion/screening
  - Cervical, breast, bowel, child health screening, immunisations, BP check
- Social vulnerability recordings
- Practice characteristics
  - Practice list size, urban/rural, deprivation/affluence, time from appt made

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Methods- social vulnerability (1)

- International vulnerability descriptors:
  - Poverty, BME, old age, lack insurance, chronic illness, prisoner, homeless, resident underserved areas, SE status, migration, low education, unemployment, widow status (Grabovichi et al 2013)
- ACE: Experiences under 18 years of age
  - **emotional neglect, physical neglect, sexual abuse, witnessed domestic violence, parental separation, mental illness in household, problem substance use in the household, anyone from household in prison** (Dube et al 2008)
  - Included in Read code for extract if directly mentioned or consequences of these evident (eg child is in care)
  - RCGP/NSPCC coding from Safeguarding Children Toolkit for General Practice included

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Methods- social vulnerability (2)

- SMD: recorded in past year (Bramley et al 2015)
  - **Homeless, in prison, addictions care, mental health service care**
- Additional from research team
  - **Victim domestic abuse, victim of violence (inc sex work), long term carer, additional communication needs, vulnerable adult, mobility issues, benefits claims, inadequate housing**
- Health conditions/SE status/education level in other categories

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Analysis-detailed stats plan

- Data cleaning
- Applying appointment rules
- Descriptive analysis
- Visualisations
- Regression analysis
- Case studies
- Predictive tool development

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Discussion topics

- challenges of representing ‘social vulnerability’ in research, how can this be enhanced?
- coming from your perspective what would you like to see drawn out in a large quantitative project about serial missed appointments?

Thank you!

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